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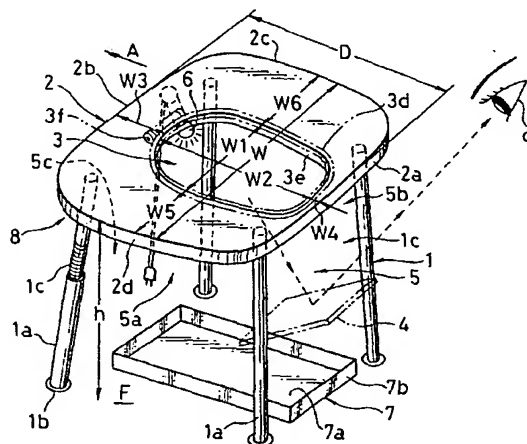
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(54) Anorectal examination seat

(57) An anal/rectal examination seat is particularly suitable for the aged, the physically handicapped and foreigners who are accustomed to a sitting type lavatory and reluctant to use a squat type one and allows the doctor to examine the exposed prolapsing parts visually and, whenever necessary, by palpating it to diagnose the case accurately. The anal/rectal examination seat is characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having an opening extending between the front and rear edges thereof for receiving the buttocks of the examinee sitting on the

seat and allowing them to displace downwardly gravitationally to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow a reflection mirror to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing lesion of the anus/rectum of the examinee observable to the examiner and the reflection mirror enables to make the hidden prolapsing lesions visible and the movable lesions of intrapelvic and abdominal viscera are made palpable as much as possible easily, because of their descents while the examinee squats on the seat and applies an abdominal pressure.

FIG. 1



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## Description

### BACKGROUND OF THE INVENTION

#### [Field of the Invention]

[0001] This invention relates to an examination seat adapted for the doctor to examine the ailing anus and/or rectum of the patient. An examination seat according to the invention is particularly suitable for the aged, the physically handicapped and foreigners who are accustomed to a sitting type lavatory and reluctant to use a squat type one and allows the doctor to examine the exposed prolapsing parts visually and, whenever necessary, by palpating it with finger tips to diagnose the case accurately.

#### [Prior Art]

[0002] Conventionally, the patient with an ailing anus and rectum is forced to take either an inclined posture with the face obliquely directed downward as shown in Fig. 9A of the accompanying drawings or a seat-up posture as shown in Fig. 9B on an examination seat *a* to allow the doctor to examine the exposed prolapsing parts. However, the doctor cannot fully examine the exposed prolapsing parts visually and by palpating it with either of these postures. Additionally, the movable cancerous lesions of the deep rectum and colon including other viscera retract into the abdominal cavity from the pelvic cavity to escape the doctor's finger on transanal digital examination and doctor's eyes on anoscopy and rectosigmoidoscopy using hard, not flexible and outdated rectosigmoidoscope with either of these postures if they are remotely located from anus.

[0003] It is true that the recent technological development on a flexible colonofibroscope has made it possible to endoscopically examine almost all lesions of the anus/rectum and colon of the patients once the initial examination suggests a malignant disease. However, it is not easy for the doctor to become skilled in the handling of a colonofibroscope and hence it is practically impossible to use a colonofibroscope in all suspected patients.

[0004] Thus, to bypass the above identified drawbacks of the conventional examination techniques, a squat type examination lavatory *c* as illustrated in Fig. 10 has been proposed by the inventor of the present invention so that the doctor may direct the examinee *b* to squat and strain as if he or she did at stool. However, the accuracy of the doctor's diagnosis through visual and digital examination will be greatly improved, if the patients strains on the seat in a manner as described above.

[0005] Generally, anorectal diseases include prolapsing ones such as internal and external hemorrhoid, anal prolapse, hypertrophied anal papilla, traction anal fissure, pedunculated rectal polyp and rectal prolapse and

stationary ones such as anal fistula and periproctal abscess, of which the former take about seventy percent of the cases of anorectal diseases.

[0006] Thus, with a squat type examination lavatory *h*, the patient having the symptom of any of the former diseases can force out and expose the prolapsing parts of the anus/rectum as he or she squats and strains and the doctor *d* can observe that part from behind the patient by way of a reflecting mirror *e* inserted under the seat *h*. As a matter of fact, it is desirable but impractical that the doctor observes the exposed prolapsing lesions when the patient is actually straining at stool. However, the accuracy of the doctor's diagnosis through visual and contact examination will be greatly improved if the patient strains on the seat in a manner as described above. In addition, the movable lesions in the pelvic and abdominal cavities can be lowered maximally to anus sometimes within reach of index finger on transanal digital examination as the patient strains to apply pressure to the abdomen on the seat.

[0007] However, a squat type examination lavatory of the above-described type is not feasible for a physically handicapped patient who cannot squat or a patient who refuses the use thereof. Then, a sitting type examination lavatory *f* as shown in Fig. 11 will have to be used. Thus, while the prolapsing parts of the anus/rectum of the patient may become exposed with the use of such a lavatory *f* when the patient strains and then the doctor may be able to observe it by illuminating it by means of a reflecting mirror *e* and a torch lamp *g* so that the use of such a lavatory may provide an effect far better than the conventional one to accurately and reliably examine and diagnose the disease on the prolapsing parts of the patient nor is it possible at all for the doctor to palpate the prolapsing parts of the anus/rectum of the patient with the use of such a lavatory.

[0008] As discussed above, while a squat type examination lavatory shown in Fig. 10 provides a major improvement if compared with the conventional practices of Figs. 9A and 9B, the so-called mirror lavatory will have to be provided in, near or adjacent the examination room in the hospital. Additionally, an ordinary squat type lavatory is provided with a relatively low back wall of the lavatory that makes the manipulation of the reflecting mirror rather difficult and, while the long axis of rectal ampulla and that of the narrow anorectal canal normally intersect each other with an obtuse angle become aligned to a relatively straight line with ease at a squat posture to make the prolapsing lesions become exposed simply as the patient strains. The use of such a lavatory is not feasible for the aged, the physically handicapped, foreigners who are not accustomed to take a squat posture and examinees who are otherwise reluctant to take such a squat posture.

[0009] On the other hand, if a sitting type lavatory system *f* as shown in Fig. 11 is adopted, the mirror lavatory will also additionally have to be provided in, near and adjacent the examination room. Additionally, while it is

somehow possible to substantially align the rectal ampulla and the anal/rectal tract if the examinee b bend him- or herself forwardly, the doctor d will have to experience great difficulty in handling the reflecting mirror e to place it in a proper position by means of the handle e1 of the reflecting mirror e because the opening k of the lavatory closed by the lavatory seat j placed on the lavatory and the buttocks of the examinee b placed thereon.

[0010] Still additionally, the lighting in the lavatory room cannot illuminate the exposed prolapsing parts of the patient with this system so that a torch light Tg will have to be used to impose additional handling difficulty and work load on the doctor d.

[0011] Finally, it is practically impossible for the doctor to examine the movable lesion of the deep rectum and sigmoid colon of the patient by palpating it through the anus with this system if it is located remote from the latter.

#### SUMMARY OF THE INVENTION

[0012] Therefore, it is the object of the present invention to provide an anorectal examination seat that is free from the above-identified problems of the prior art.

[0013] According to a first aspect of the invention, the above object of the invention is achieved by providing an anorectal examination seat characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having an opening extending between the front and rear edges thereof for receiving the buttocks of the examinee sitting on the seat and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner.

[0014] With this arrangement, the doctor can observe a reflected image of the exposed prolapsing parts of the anus/rectum of the examinee with ease while the examinee is sitting-in position without experiencing excessive stress for the medical examination if the seat is isolated simply by means of a partition or a curtain so that no extra lavatory room will have to be provided outside the examination room for it. Thus, medical examinations using such an anorectal examination seat can be conducted without efforts efficiently at low cost. Additionally, the above arrangement provides the advantage that the seat allows the buttocks of the examinee to displace downwardly to a level far below from the level achievable by means of a sitting type lavatory and makes the examinee practically take a squat posture and expose the prolapsed parts. Still additionally, since a space is provided to allow an examination reflector to be inserted in order to make the prolapsed parts of the examinee

observable to the examiner, the doctor can handle the reflector with a remarkably enhanced level with ease and command a wide viewing angle for an unrestricted examining operation.

[0015] Additionally, the doctor can examine the movable lesion of the deep rectum and sigmoid colon of the patient by palpating it through the anus, if it is located remote from the latter.

[0016] According to a second aspect of the invention, in an anorectal examination seat according to the first aspect, a light source is attached to one of the legs or to the horizontal seat section and adapted to illuminate the exposed prolapsing parts of the anus/rectum of the examinee projecting from the buttocks of the examinee to a certain extent from the opening. With this arrangement, the exposed prolapsing parts can be illuminated properly without relying on the lighting system of the examination room and/or a torch light operated by the doctor to make the examination easy and reliable.

[0017] According to a third aspect of the invention, in an anorectal examination seat according to the first aspect, a tray is additionally provided for carrying thereon a lavatory and disposed right below the opening for receiving the buttocks of the examinee and dimensionally fitted for placement on the floor. Thus, the examination room can be prevented from being unintentionally contaminated with filth.

[0018] According to a fourth aspect of the invention, in an anorectal examination seat according to the first aspect of the invention, the horizontal seat section has a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent. With this arrangement, the doctor can observe a reflected image of the exposed prolapsing parts of the anus/rectum of the examinee without being hindered by the horizontal seat section that might otherwise adversely affect the observation of the doctor.

[0019] According to fifth and sixth aspects of the invention, in an anorectal examination seat according to the fourth embodiment, a light source and a tray for carrying thereon a lavatory are additionally and respectively provided as in the case of the second and third aspects relative to the first aspect in order to achieve the identical respective effects.

[0020] According to a seventh aspect of the invention, in an anorectal examination seat according to the fourth aspect of the invention, a narrow guard rail is provided to bridge the gap of the rear edge of the horizontal seat section. Thus, the horizontal seat section is reinforced by the guard rail while the doctor can observe a reflected image of the exposed prolapsing parts of the anus/rectum of the examinee with a minimal hindrance in order to achieve both an enhanced level of durability and strength and an excellent visibility at the same time.

[0021] According to eighth and ninth aspects of the invention, in an anorectal examination seat according to

the seventh embodiment, a light source and a tray for carrying thereon a lavatory are additionally and respectively provided as in the case of the fifth and sixth aspects relative to the fourth aspect in order to achieve the identical respective effects.

[0022] According to a tenth aspect of the invention, in an anorectal examination seat according to the fourth aspect of the invention, an optically transitive reinforcement member is provided to bridge the gap of the rear edge of the horizontal seat section. Thus, the horizontal seat section is reinforced by the reinforcement member while the doctor can observe a reflected image of the exposed prolapsing parts of the anus/rectum of the examinee with a minimal hindrance.

[0023] According to an eleventh aspect of the invention, in an anorectal examination seat according to any of the above first through tenth aspects of the invention, the opening or recess for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent is defined either by the horizontal seat section alone or by the horizontal seat section and a rim cover member removably fitted to the horizontal seat section or pivotally fitted to the horizontal seat section by means of a hinge member secured to the latter at the front end of the opening or the recess, whichever is appropriate. Thus, if the rim cover member is removable, it can be removed from the horizontal seat section for replacement and for cleaning for each examinee in order to provide him or her with an improved level of comfort and cleanliness. If, on the other hand, the rim cover member is pivotally fitted to the horizontal seat section by means of a hinge member, it may be used like a lavatory seat for a sitting type lavatory.

[0024] According to a twelfth aspect of the invention, in an anorectal examination seat according to any of the above first through tenth aspects of the invention, each of the legs include a plurality of telescopic leg members adapted for screw engagement or pin/pin hole engagement to make it extendible/ retractable continuously or stepwise and regulate the elevation of the horizontal seat section.

[0025] According to a thirteenth aspect of the invention, there is provided an anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a predetermined upper position of the base supporting legs and a seat unit including legs extending upwardly from and secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs, the horizontal seat section having an opening extending between the front and rear edges thereof for receiving the buttocks of the examinee sitting on the seat and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the

horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base.

[0026] According to a fourteenth aspect of the invention, in an anorectal examination seat according to the thirteenth aspect of the invention, the legs are removably fitted to the top of the respective base supporting legs from above as extensions thereof. Thus, while the seat unit of an anorectal examination seat according to the thirteenth aspect of the invention is rigidly secured to the base, that of an anorectal examination seat according to the fourteenth aspect of the invention is removable.

[0027] According to a fifteenth aspect of the invention, in an anorectal examination seat according to either the thirteenth or the fourteenth aspect of the invention and hence comprising either a seat unit including legs extending upwardly from and secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs or a seat unit including legs removably fitted to the top of the respective base supporting legs from above as extensions thereof and a horizontal seat section, the horizontal seat section is provided with a safety railing.

[0028] According to a sixteenth aspect of the invention, in an anorectal examination seat according to the thirteenth aspect of the invention, the horizontal seat section has a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent.

[0029] According to seventeenth and eighteenth aspects of the invention, in an anorectal examination seat according to the sixteenth embodiment, the seat unit is made to include either legs extending upwardly from and secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs or a seat unit including legs removably fitted to the top of the respective base supporting legs from above as extensions thereof and a horizontal seat section, whichever is appropriate, and the horizontal seat section is provided with a safety railing as in the case of the fourteenth and fifteenth aspects of the invention.

[0030] According to a nineteenth aspect of the invention, in an anorectal examination seat according to the sixteenth aspect of the invention and hence comprising a seat unit rigidly secured to the base unit, a light source is attached to one of the legs or to the horizontal seat section and adapted to illuminate the exposed prolapsing parts of the anus/rectum of the examinee projecting from the buttocks of the examinee to a certain extent from the opening.

[0031] According to a twentieth aspect of the invention, in an anorectal examination seat according to the sixteenth aspect of the invention, as described earlier, a tray is additionally provided for carrying thereon a lav-

atory and disposed right below the opening for receiving the buttocks of the examinee and dimensionally fitted to be placed on the horizontal base member having a step zone.

**[0032]** According to a twenty-first aspect of the invention, in an anorectal examination seat according to the sixteenth aspect of the invention, the seat unit has a configuration same as the seat of an anorectal examination seat according to the seventh aspect of the invention and includes legs extending upwardly from and secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs as in the case of the thirteenth, sixteenth and nineteenth aspects of the invention.

**[0033]** According to twenty-second and twenty-third aspects of the invention, in an anorectal examination seat according to the twenty-first aspect of the invention, the seat unit is removably fitted to the base unit and either removably fitted or rigidly secured to the base unit respectively and the horizontal seat section is provided with a safety railing as in the case of the seventeenth and eighteenth aspects of the invention relative to the sixteenth aspect in order to achieve the identical respective effects.

**[0034]** According to twenty-fourth and twenty-fifth aspects of the invention, in an anorectal examination seat according to the twenty-first aspect of the invention, a light source and a tray for carrying thereon a lavatory are additionally and respectively provided.

**[0035]** According to any of twenty-sixth through thirtieth aspects of the invention, there is provided an anorectal examination seat comprising a seat unit essentially same as that of an anorectal examination seat according to the tenth invention. However, while the seat unit of an anorectal examination seat according to the twenty-sixth aspect of the invention is rigidly secured to the base, that of an anorectal examination seat according to the twenty-seventh aspect of the invention is removable. According to the twenty-eighth aspect of the invention, the seat unit is either rigidly secured or removably fitted to the base unit and the horizontal seat section is provided with a safety railing.

**[0036]** According to twenty-ninth and thirtieth aspects of the invention, in an anorectal examination seat according to the twenty-sixth aspect of the invention, a light source and a tray for carrying thereon a lavatory are additionally and respectively provided.

**[0037]** According to a thirty-first aspect of the invention, in an anorectal examination seat according to any of the thirteenth through thirtieth aspects of the invention, the opening or recess for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent is defined either by the horizontal seat section alone or by the horizontal seat section and a rim cover member removably fitted to the horizontal seat section or pivotally fitted to the horizontal seat section by means of a hinge member secured to the latter at the front end of the opening or the recess, whichever is ap-

propriate.

## BRIEF DESCRIPTION OF THE DRAWINGS

**[0038]** Fig. 1 is a schematic perspective view of an anorectal examination seat according to any of the first through third, eleventh and twelfth aspects of the invention.

**[0039]** Fig. 2 is a schematic perspective view of an anorectal examination seat according to any of the fourth through sixth, eleventh and twelfth aspects of the invention.

**[0040]** Fig. 3 is a schematic perspective view of an anorectal examination seat according to any of the seventh through ninth and eleventh aspects of the invention.

**[0041]** Fig. 4 is a schematic perspective view of an anorectal examination seat according to the tenth or eleventh aspect of the invention.

**[0042]** Fig. 5 is a schematic perspective view of an anorectal examination seat according to any of the thirteenth through fifteenth and thirty-first aspects of the invention.

**[0043]** Fig. 6 is a schematic perspective view of an anorectal examination seat according to any of the sixteenth through twentieth and thirty-first aspects of the invention.

**[0044]** Fig. 7 is a schematic perspective view of an anorectal examination seat according to any of the twenty-first through twenty-fifth and thirty-first aspects of the invention.

**[0045]** Fig. 8 is a schematic perspective view of an anorectal examination seat according to any of the twenty-sixth through thirty-first aspects of the invention.

**[0046]** Fig. 9A is a schematic perspective view of an examinee taking an inclined posture with the face obliquely directed downward for a prior art anorectal examination.

**[0047]** Fig. 9B is a schematic perspective view of an examinee taking a seat-up posture for a prior art anorectal examination.

**[0048]** Fig. 10 is a schematic perspective view of an examinee taking a squatting posture on a squat type examination lavatory for a prior art anorectal examination.

**[0049]** Fig. 11 is a schematic perspective view of an examinee taking a sitting posture on a sitting type lavatory for a prior art anorectal examination.

## DETAILED DESCRIPTION OF THE INVENTION

**[0050]** Now, the present invention will be described in greater detail by referring to the accompanying drawings that illustrate preferred modes of carrying out the invention.

**[0051]** To begin with, an anorectal examination seat according to the first aspect of the invention will be described by referring to Fig. 1. It comprises a required number of legs 1 for standing on the floor E and a hori-

horizontal seat section 2 arranged at the top of the legs 1 with a height  $h$  which is about 30cm from the floor and good for the examinee to sit on the seat with ease. In a preferred specific embodiment, the horizontal seat section 2 has a width  $W$  and a length  $D$  equal to about 32cm and is realized in the form of a flat panel made of wood or synthetic resin. If it is made of wood, it is preferably painted. In Fig. 1, a total of four rods 1a are used for the legs 1 and fitted to the respective corners of a substantially rectangularly parallelepiped horizontal seat section 2. The rods 1a are preferably provided at the lower end thereof with respective caps 1b or casters provided with an antirotation device.

[0052] The horizontal seat section 2 has an opening 3 extending between the front edge 2b and the rear edge 2a thereof as viewed from the examinee (not shown) sitting on the seat for receiving the buttocks of the examinee sitting on the seat and allowing them to displace downwardly to a certain extent. In Fig. 1, the opening 3 shows an elliptical contour.

[0053] In a preferred specific embodiment, the opening 3 for receiving the buttocks of the examinee has a short axis  $W1$  that is about 20cm and a long axis  $W2$  that is about 25 to 26cm long. Thus, in the embodiment of Fig. 1, the horizontal seat section 2 has a width  $D3$  of about 6cm between the front edge 2b and the opening 3 and a width  $D4$  as small as 1 to 2cm between the rear edge 2a and the opening 3. Otherwise, the horizontal seat section 2 has a width  $W5=W6$  of about 6cm between either of the lateral edges 2c and 2d and the opening 3.

[0054] What is more important for an anorectal examination seat according to the first aspect of the invention, a space 5 is provided according to the first aspect of the invention, a space 5 is provided centrally between the rear lateral rods 1c of the legs 1 and close to the rear edge 2a of the horizontal seat section 2 to allow an examination reflector 4 to be inserted from the rear side to a position below the horizontal seat section 2 in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner.

[0055] Thus, with an anorectal examination seat according to the first aspect of the invention, the examinee sits on the horizontal seat section 2 with the legs standing from the floor  $F$  near the front edge 2b and the buttocks displacing downwardly from the opening 3 for receiving the buttocks of the examinee until the anus of the examinee is located below the horizontal seat section 2. Under this condition, the examinee is asked to bend the upper body forwardly and encouraged to sufficiently strain to make the prolapsing parts of the anus/rectum come out and become exposed.

[0056] Meanwhile, the doctor, who may be sitting on a chair or squatting behind the examinee, can observe a reflected image of the exposed prolapsing parts of the anus/rectum of the examinee with ease by means of an observation reflector 4 as the doctor manually inserts from behind the examinee into the space 5 for receiving

the reflector 4 until it is located at an appropriate position below the horizontal seat section 2 and angularly regulates the inclination of the reflector 4 or moves his or her viewing position  $d$ .

5 [0057] Thus, because the anorectal examination seat is handy and portable, the examinee and the doctor are not forced to go into a lavatory room containing either a squat type or a sitting type lavatory for each examination. Additionally, the above arrangement provides the advantage that the seat allows the buttocks of the examinee to displace downwardly to a level far below from the level achievable by means of a sitting type lavatory and makes the examinee practically take a squat posture and expose the prolapsing parts.

10 [0058] Still additionally, since a space 5 is provided to allow an examination reflector 4 to be inserted in order to make the prolapsing lesions of the examinee observable to the examiner, the doctor can handle the reflector 4 with a remarkable enhanced level with ease and command a wide viewing angle for an unrestricted examining operation.

20 [0059] Note that in the instance of Fig. 1, lateral and frontal spaces 5a, 5b and 5c are available for examination on the part of the doctor in addition to the space 5 for receiving an observation reflector 4 so that the doctor can examine the exposed prolapsing lesions by palpating practically free from any obstacle, additionally, if necessary.

25 [0060] On the other hand, the doctor  $d$  can simultaneously examine the movable lesion of intraventricular and abdominal viscera by palpating it through the anus, if it is located remote from the anus by utilizing the space 5.

30 [0061] Now, an anorectal examination seat according to the second aspect of the invention will be described also by referring to Fig. 1. It differs from an anorectal examination seat according to the first aspect in that it additionally comprises a light source 6.

35 [0062] The light source 6 is attached to one of the legs 1 or to the horizontal seat section 2 and adapted to illuminate the exposed prolapsing parts of the anus/rectum of the examinee projecting from the buttocks of the examinee to a certain extent from the opening 3.

40 [0063] The light source 6 may be rigidly secured or removably fitted to a desired position. Additionally, it may be so arranged that the light source 6 is directed to a desired direction by means of a universal joint or some other means.

45 [0064] With this arrangement, the exposed prolapsing parts can be illuminated properly without relying on the lighting system of the examination room and/or a torch light operated by the doctor  $d$  to make the examination easy and reliable. A plurality of light sources may be arranged to expose the prolapsing parts under an unshadowed condition for the ease of observation or photographing.

50 [0065] Now, an anorectal examination seat according to the third aspect of the invention will be described also by referring to Fig. 1. It differs from an anorectal exam-

ination seat according to the first aspect in that it additionally comprises an appropriately dimensioned tray 7 for carrying thereon a lavatory.

**[0066]** More specifically, it comprises an examination seat main assembly 8 of legs 1 for standing on the floor F and a horizontal seat section 2 arranged at the top of the legs 1 and additionally a tray 7 for carrying thereon a lavatory as a component thereof.

**[0067]** The tray 7 is disposed right below the opening 3 for receiving the buttocks of the examinee and dimensionally fitted for placement on the floor. In Fig. 1, reference symbols 7a and 7b respectively denote the bottom plate and the standing peripheral section of the tray 7 for carrying thereon a lavatory.

**[0068]** Thus, when a lavatory (not shown) is placed on the tray 7 of an anorectal examination seat according to the third aspect of the invention, the examination room can be prevented from being unintentionally contaminated with filth and the doctor *d* can concentrate on the current examination being conducted by vision and/or by palpation. This arrangement is advantageous, because the examination room including the anorectal examination seat can be cleaned with ease from the viewpoint that the excrements of the examinee is always indispensable for doctor's diagnosis.

**[0069]** Now, an anorectal examination seat according to any of the fourth through sixth aspects of the invention will be described. It differs from an anorectal examination seat according to any of the first through third aspects of the invention only in terms of the configuration of the opening 3 for receiving the buttocks of the examinee in a manner as discussed below.

**[0070]** According to any of the fourth through sixth aspects of the invention, the horizontal seat section 2 has a deep and hollow recess 3 extending from a gap 3a at the rear edge 2a toward the front edge 2b thereof for receiving the buttocks of the examinee and allowing them to displace gravitationally downwardly to a certain extent.

**[0071]** The gap 3a is preferably located at the middle of the rear edge 2a and the width W7 of the gap, or the distance between the opposite ends 3b, 3c of the rear edge 2a, is preferably dimensioned to be equal to about 10cm. With this arrangement, the recess 3 is in communication with the outside by way of the gap 3a so that the doctor *d* can observe a reflected image of the exposed prolapsing parts of the anus/rectum of the examinee without being hindered by the horizontal seat section between the opposite ends 3b, 3c of the rear edge 2a. Additionally, if the gap 3a is sized to allow an arm of the doctor *d* to pass therethrough, the doctor *d* can easily examine the intrapelvic and abdominal movable lesions of the examinee by palpation when it is located remote from the anus of the examinee and bears cancer or polyps of deep rectum and sigmoid colon.

**[0072]** According to the fifth and sixth aspects of the invention, in an anorectal examination seat according to the fourth embodiment, a light source 6 and, a tray 7 for

carrying thereon a lavatory are additionally and respectively provided as in the case of the second and third aspects relative to the first aspect in order to achieve the identical respective effects. Thus, their advantages will not be described here any further.

**[0073]** An anorectal examination seat according to any of the seventh through ninth aspects of the invention differs from an anorectal examination seat according to any of the fourth through sixth aspects only in terms of the profile of the deep and hollow recess 3 for receiving the buttocks of the examinee and allowing them to displace gravitationally downwardly to a certain extent.

**[0074]** More specifically, the recess 3 is not in communication with the outside unlike its counterpart of the latter nor does it resemble the closed opening 3 of an anorectal examination seat according to any of the first through third aspects. A narrow guard rail 9 is provided to bridge the gap of the rear edge 2a of the horizontal seat section 2. Thus, the opening 3 for receiving the buttocks of the examinee extends from the narrow guard rail 9 toward the front edge 2b of the horizontal seat section 2.

**[0075]** In other words, unlike the case of the horizontal seat section 2 of Fig. 1, the narrow guard rail 9 is not part of the horizontal seat section 2 but provided as a separate member that is made as thin as possible. Thus, while it may obstruct the view of the doctor to a slight extent if compared with the open recess 3a of Fig. 2, the horizontal seat section 2 is reinforced by the guard rail 9 while the doctor *d* can observe a reflected image of the exposed prolapsing parts of the anus/rectum of the examinee with a minimal hindrance in order to achieve both an enhanced level of durability and strength and an excellent visibility at the same time.

**[0076]** According to the eighth and ninth aspects of the invention, in an anorectal examination seat according to the seventh embodiment, a light source and a tray for carrying thereon a lavatory are respectively provided as in the case of the fifth and sixth aspects relative to the fourth aspect in order to achieve the identical respective effects. Therefore, their advantages will not be described here any further.

**[0077]** An anorectal examination seat according to the tenth aspect of the invention differs from an anorectal examination seat according to the fourth aspect in a manner as described below.

**[0078]** The horizontal seat section 2 has a deep and hollow recess 3 extending from a gap 3a at the rear edge 2a toward the front edge 2b thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and an optically transmissive reinforcement member 10 is provided to bridge the gap 3a, or the distance between the opposite ends 3b, 3c of the rear edge 2a, of the horizontal seat section 2.

**[0079]** The reinforcement member may be secured to the horizontal seat section 2 preferably by means an adhesive agent, screws or a locking mechanism. Thus, the



horizontal seat section 2 is reinforced by an optically transparent reinforcement member 10, which does not have to be very thin unlike the above described narrow guard rail 9, so that the horizontal seat section 2 can have a mechanical strength greater than its counterpart of Fig. 3. Then, the doctor d can observe a reflected image of the exposed prolapsing parts of the anus/rectum of the examinee with a minimal hindrance as satisfactorily as its counterpart of Fig. 2 and described above by referring to the fourth aspect of the invention.

[0080] According to the eleventh and twelfth aspects of the invention, in an anorectal examination seat according to any of the above first through tenth aspects of the invention, the opening or recess 3 for receiving the buttocks of the examinee and the legs 1 are modified respectively.

[0081] More specifically, according to the eleventh aspect of the invention, the opening or recess 3 for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent is defined either by the horizontal seat section 2 as in shown in Figs. 1 through 4 or by the horizontal seat section 2 and a rim cover member 3d as shown by phantom lines in Figs. 1 through 4.

[0082] The rim cover member 3d is preferably made of a thermally insulating material such as synthetic resin. It may be so configured as to be removably fitted to the inner peripheral edge 3e of the horizontal seat section 2 to define the opening or recess 3 for receiving the buttocks of the examinee. Then, the examinee sitting in position on the anorectal examination seat may have a feeling of warmth and, if appropriate, the rim cover member 3d may be replaced with a new one or taken out and cleansed for each examinee.

[0083] Alternatively, the rim cover member 3d may be pivotally fitted to the horizontal seat section 2 by means of a hinge member 3f secured to the latter near at the front edge 3f of the opening or the recess as shown by phantom lines in Figs. 1 through 4. Thus, the rim cover member 3d may be used like a seat for a sitting type lavatory, although it is pivotal oppositely relative to an ordinary lavatory seat.

[0084] According to the twelfth aspect of the invention, in an anorectal examination seat according to any of the above first through tenth aspects of the invention, each of the legs 1 include a plurality of telescopic leg members to make it extendible/retractable and adjust the height of the horizontal seat section 2 as shown in Figs. 1 and 2, although only one of the legs is shown as telescopic there.

[0085] Referring to Fig. 1, the leg has two telescopic leg members 1a and the smaller diameter leg member is threaded on the outer periphery while the larger diameter leg member is threaded on the inner periphery for screw engagement, which is very popular, so that the height of the leg is adjustable continuously.

[0086] Referring to Fig. 2, the adjustable leg 1 also has two telescopic leg members 1a and the smaller di-

ameter leg members is provided with a retractable lock pin 1d urged outwardly typically by means of a spring while the larger diameter leg member is provided with a number of pin holes for engagement with the pin. With this arrangement, the height of the leg is adjustable stepwise.

[0087] When the legs are made extendible/retractable to regulate the height of the horizontal seat section 2, an optimal height can be selected for the horizontal seat section 2 depending on the physical constitution of the examinee and the examining actions of the doctor. It may be appreciated that, if necessary, only the front legs or the rear legs of the anal/rectal examination seat can be selectively regulated to optimize the effect of examination.

[0088] According to any of the thirteenth through thirty-first aspect of the invention, an anorectal examination seat is so arranged that the examinee can sit at an elevated position and hence the doctor 3 can accurately and reliably examine the exposed prolapsing parts of the examinee by vision and/or palpation while sitting on a seat. With such an arrangement, neither the lavatory nor the tray for receiving it does not have to be placed directly on the floor F.

[0089] According to the thirteenth aspect of the invention, there is provided an anorectal examination seat as shown in Fig. 5 and comprising a base unit 13 including base supporting legs 11 for standing on the floor F and a horizontal base member 12 having a step zone and arranged at a predetermined upper position of the base supporting legs and a seat unit 14 including legs 1 extending upwardly from and secured to the top of the respective base supporting legs 12 and a horizontal seat section 2 arranged at the top of the legs 1. The seat unit 14 correspond to an anorectal examination seat according to the first aspect of the invention.

[0090] Referring to Fig. 5, reference symbol 11a denotes four leg members of the base unit and reference symbol 11b denote four horizontal reinforcement rods interconnecting the leg members 11a. The four leg members 1a of the legs 1 of the seat unit 14 are connected to the respective leg members 11a of the base unit and secured to the horizontal base member 12 having a step zone by means of four lock members 13a. Thus, both the leg members 1a of the seat unit 14 and the leg members 11a of the base unit are secured to the horizontal base unit 13 so that the base unit 13 and the seat unit 14 are integral with each other.

[0091] Additionally, like an anorectal examination seat according to any of the preceding aspects of the invention, the horizontal seat section 2 has an opening 3 extending between the rear edge 2a and the front edge 2b for receiving the buttocks of the examinee sitting on the seat and allowing them to displace downwardly to a certain extent and a space 5 is provided centrally between the rear lateral legs 1c and close to the rear edge 2a of the horizontal seat section 2 to allow an examination reflector to be inserted from the rear side of a posi-



tion below the horizontal seat section 2 in order to make the exposed prolapsing parts of the anus/rectum of the examinee observable to the examiner.

[0092] Still additionally, the front edge 2b of the horizontal seat section 2 is located rearward relative to the step zone 12a of the horizontal base member 12 of the base unit 13. Thus, the examinee can sit of the horizontal seat section 2 by way of the step zone 12a and rest the feet on the step zone 12a while sitting in position.

[0093] Specifically, the horizontal base member 12 of the base unit 13 preferably shows a height H of about 30cm from the floor to allow the doctor d to examine the exposed prolapsing parts of the examinee while sitting on a seat.

[0094] According to a fourteenth aspect of the invention, in an anorectal examination seat according to the thirteenth aspect of the invention, the base unit 13 is not rigidly secured to the seat unit 14 but the legs 1 of the seat unit 14 are removably fitted to the top of the respective base supporting legs from above as extensions thereof and hence to the horizontal base member 12 having a step zone of the base unit 13. The seat unit 14 may be simply placed on the base unit 13 or, alternatively, the caps 1b of the leg members 1a of the seat unit 14 may be held in engagement in respective recesses arranged in the horizontal base member 12 having a step zone in order to make the two units immovable relative to each other.

[0095] Thus, according to the fourteenth aspect of the invention, the seat unit 14 may be placed on the base unit 13 or it may be used independently depending on the convenience of the doctor d and the physical conditions of the examinee.

[0096] Since a lavatory may be placed directly or indirectly on the horizontal base member 12 having a step zone with this arrangement, an anorectal examination seat having a base unit provides an improved operability and the floor F is prevented from being contaminated with filth.

[0097] According to the fifteenth aspect of the invention, in an anorectal examination seat according to either the thirteenth or the fourteenth aspect of the invention and hence comprising either a seat unit 14 including legs 1 extending upwardly from and secured to the top of the horizontal base member 12 having a step zone of the base unit 13 or a seat unit 14 including legs 1 removably fitted to the top of the horizontal base member 12 having a step zone of the base unit 13, the horizontal seat section 2 of the seat unit 14 is provided with a safety railing 15.

[0098] The safety railing 15 can give the examinee a feeling of security and assist the examinee to strain in order to expose the prolapsing parts to the outside of the body.

[0099] Note that the safety railing 15 of Fig. 5 includes four standing rods 15a and horizontal lateral rods 15b and a horizontal rear rod interconnecting them.

[0100] An anorectal examination seat according to

any of the sixteenth through twentieth aspects of the invention differs from those anorectal examination seat according to any of the thirteenth through fifteenth aspects in that the horizontal seat section 2 has a recess 3 for receiving the buttocks of the examinee like the one in an anorectal examination seat according to the fourth aspect. Referring to Fig. 6, the horizontal seat section 2 has a deep and hollow recess 3 extending from the rear edge 2a toward the front edge 2b thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent. The anorectal examination seat has a two-storied structure of a base unit and a seat unit, of which the latter may be rigidly secured to the former as in the case of the sixteenth aspect while the latter may be removably fitted to the former as in the case of the seventeenth aspect. According to the eighteenth aspect, the seat unit 14 may be either rigidly secured to or removably fitted to the base unit 13 and is provided with a safety railing 15.

[0101] According to the nineteenth and twentieth aspects of the invention, an anorectal examination seat according to the sixteenth aspect of the invention is additionally and respectively provided with a reflector 4 for visual examination and a tray 7 for receiving a lavatory. The tray 7 for receiving a lavatory is not placed on the floor F but dimensioned so as to be placed on the horizontal base member 12 having a step zone of the base unit 13. This arrangement is advantageous in that the recess 3 for receiving the buttocks of the examinee, the lavatory and the horizontal base member 12 having a step zone are arranged vertically in the above mentioned order to prevent the examination room from being contaminated by filth.

[0102] The twenty-first through twenty-fifth aspects of the invention corresponds to the sixteenth through twentieth aspects respectively but differ in that the former is related to the fourth aspect whereas the latter is related to the seventh aspect.

[0103] In other words, in an anorectal examination seat according to any of the twenty-first through twenty-fifth aspect of the invention, the gap of the opening 3 for receiving the buttocks of the examinee at the rear edge 2a of the horizontal seat section 2 is closed by a narrow guard rail 9, the effect of which is already described above.

[0104] According to the twenty-first aspect of the invention, the seat unit 14 is rigidly secured to the base unit as shown in Fig. 7. On the other hand, according to the twenty-second aspect, the seat unit 14 is removably fitted to the base unit 13. According to the thirty-third aspect, the seat unit 14 may be rigidly secured or removably fitted to the base unit 12 and is provided with a safety railing 15, the effect of which is already described above.

[0105] According to the twenty-fourth and twenty-fifth aspects of the invention, in an anorectal examination seat according to the twenty-first embodiment, a light source and a tray for carrying thereon a lavatory are ad-

ditionally and respectively provided in order to achieve the identical respective effects. Therefore, their advantages will not be described here any further.

[0106] The twenty-sixth through thirtieth aspects of the invention corresponds to the twenty-first through twenty-fifth aspects respectively but differs in that the former is related to the seventh aspect of the invention.

[0107] In other words, in an anorectal examination seat according to any of the twenty-sixth through thirtieth aspect of the invention, the gap of the opening 3 for receiving the buttocks of the examinee at the rear edge 2a of the horizontal seat section 2 is closed by an optically transmissive reinforcement member 10, the effect of which is already described above.

[0108] According to the twenty-sixth aspect of the invention, the seat unit 14 is rigidly secured to the base unit. On the other hand, according to the twenty-seventh aspect, the seat unit 14 is removably fitted to the base unit 13. According to the twenty-eighth aspect, the seat unit 14 may be rigidly secured or removably fitted to the base unit 12 and is provided with a safety railing 15, the effect of which is already described above. According to the twenty-ninth and thirtieth aspects of the invention, in an anorectal examination seat according to the twenty-sixth embodiment, a light source and a tray for carrying thereon a lavatory are additionally and respectively provided in order to achieve the identical respective effects.

[0109] In an anorectal examination seat according to any of the thirteenth through thirtieth aspects of the invention, preferably the horizontal seat section 2 of the seat unit 14 may be provided with a rim cover member 3d and the height of the legs 1 may be made adjustable as described above by referring to the first through tenth aspects of the invention.

[0110] According to the thirty-first aspect of invention, a rim cover member 3d having a circular or U-shaped profile is either removably fitted to the inner peripheral edge 3e of the horizontal seat section 2 or pivotally fitted to the horizontal seat section 2 by means of a hinge member 3f secured to the latter near at the front edge 3f of the opening or the recess as shown by phantom lines in Figs. 5 through 8 as described above by referring to the eleventh aspect of the invention. Thus, the rim cover member 3d may be used like a lavatory seat for a sitting type lavatory to define the opening 3 for receiving the buttocks of the examinee.

[0111] Thus, an anorectal examination seat according to the first aspect of the invention provides the following advantages. It eliminates the necessity of installing an independent lavatory room containing a squat type or sitting type lavatory so that the examinee can be examined within the examination room efficiently.

[0112] Additionally, since the buttocks of the examinee are received in the opening 3 and allowed to displace downwardly to a certain extent to take a posture substantially similar to a squat posture, the examinee will not hesitate to sit on the seat if he or she is accus-

tomed to a sitting type lavatory.

[0113] Still additionally, a space is provided to receive a reflector, the examination reflector can be operated easily, accurately and reliably by the doctor to broaden the viewing angle of the doctor and give the doctor also a comfortable feeling.

[0114] Since an anorectal examination seat according to the second aspect of the invention comprises a light source arranged at a position appropriate for illuminating the exposed prolapsing parts of the examinee, the exposed prolapsing parts can be illuminated properly without requiring the doctor to operate the light source or using a torch light so that the doctor can see an image of the exposed prolapsing parts formed on the reflector to produce an accurate and reliable diagnosis.

[0115] Since an anorectal examination seat according to the third aspect of the invention comprises a tray for carrying thereon a lavatory, and the latter is not placed directly on the floor so that the examination room can be prevented from being unintentionally contaminated with filth.

[0116] According to the fourth aspect of the invention, a deep and hollow recess is provided to receive the buttocks of the examinee and allow them to displace gravitationally downwardly to a certain extent. With this arrangement, the doctor can observe a reflected image of the exposed prolapsing parts of the anus/rectum of the examinee without being hindered by the horizontal seat section of the seat.

[0117] According to the fifth and sixth aspects of the invention, anorectal examination seat according to the fourth aspect is further provided with a light source and a tray for carrying thereon a lavatory, respectively, the effects of which are already described.

[0118] According to the seventh aspect of the invention, the reduction in the mechanical strength of the horizontal seat section due to the hollow recess as described above by referring to the fourth aspect is eliminated by arranging a narrow guardrail along the rear edge of the horizontal seat section. Thus, the durability of the seat can be improved and the doctor can observe a reflected image of the exposed prolapsing parts of the anus/rectum of the examinee with a minimal visual hindrance.

[0119] According to the eighth and ninth aspects of the invention, an anorectal examination seat according to the seventh aspect is additionally provided with a light source and a tray for carrying thereon a lavatory respectively, the effects of which will not need to be described here any further.

[0120] According to the tenth aspect of the invention, the narrow guard rail of an anorectal examination seat according to the seventh aspect is replaced by an optically transmissive reinforcement member to improve the durability of the horizontal seat section and minimize the visual hindrance of the member for the doctor observing a reflect image of the exposed prolapsing parts of the anus/rectum of the examinee.

[0121] According to the eleventh aspect of the invention, in an anorectal examination seat according to any of the first through tenth aspects of the invention, the opening for receiving the buttocks of the examination is provided with a rim cover member that is removably fitted to the horizontal seat section of the seat. Then, the examinee sitting in position on an anorectal examination seat may have a feeling of warmth and, if appropriate, the rim cover member 3d may be replaced with a new one or taken out and cleansed for each examinee.

[0122] According to the twelfth aspect of the invention, in an anorectal examination seat according to any of the first through tenth aspects of the invention, the legs are made adjustable for the height thereof so that an optimal height can be selected for the horizontal seat section 2 depending on the physical constitution of the examinee and the examining actions of the doctor.

[0123] According to any of the thirteenth through fifteenth aspects of the invention, an anorectal examination seat according to the invention additionally comprises a base unit for bearing the seat unit thereon at an elevated height in order to make the prolapsing parts of the anus/rectum of the examinee observable to the doctor if the latter is sitting on a seat so that the work load of the doctor may be reduced and the prolapsing parts of the examinee may be observed by the doctor more accurately and reliably.

[0124] Thus, an anorectal examination seat according to the thirteenth aspect of the invention provides the advantages of an anorectal examination seat according to the first aspect and at the same time portability. The seat unit of an anorectal examination seat according to the fourteenth aspect of the invention may be separated from the base unit and used independently in various applications. The seat unit of an anorectal m-1 examination seat according to the fifteenth aspect of the invention is provided with a safety railing to give the examinee a feeling of ease and encourage him or her to expose the prolapsing parts.

[0125] According to the sixteenth through eighteenth aspects of the invention, the opening for receiving the buttocks of the examinee in an anorectal examination seat according to any of the thirteenth through fifteenth aspects is replaced by a deep and hollow recess as described above by referring to the fourth aspect of the invention, the effect of which is described above.

[0126] According to the nineteenth and twentieth aspects of the invention, an anorectal examination seat according to the fourteenth aspect is additionally provided with a light source and a tray for carrying thereon a lavatory respectively, the effects of which will not need to be described here any further.

[0127] According to the twenty-first through twenty-sixth aspects of the invention, in an anorectal examination seat according to any of the sixteenth through twentieth aspects of the invention, the horizontal seat section is provided with a narrow safety railing to close the recess for receiving the buttocks of the examinee, the ef-

fect of which is clear from the above description.

[0128] Thus, the seat unit of an anorectal examination seat according to the twenty-first aspect of the invention is rigidly secured to the base unit and the seat unit of an anorectal examination seat according to the twenty-second aspect of the invention may be separated from the base unit and used independently in various applications. The seat unit of an anorectal examination seat according to the twenty-third aspect of the invention may be rigidly secured or removably fitted to the base unit and is provided with a safety railing, the effect of which may be obvious from the above description.

[0129] According to the twenty-sixth through thirtieth aspects of the invention, in an anorectal examination seat according to any of the sixteenth through twentieth aspects of the invention, the horizontal seat section is provided with an optically transmissive reinforcement member to close the recess for receiving the buttocks of the examinee, the effect of which is clear from the above description.

[0130] Thus, the seat unit of an anorectal examination seat may be rigidly secured or removably fitted to the base unit and may be additionally provided with a light source and/or a tray for carrying thereon a lavatory as in the case of the sixteenth through twentieth aspects of the invention. An anorectal examination seat according to the thirty-first aspect of the invention has an effect relative to its counterpart according to any of the thirteenth through thirty aspects same as an anorectal examination seat according to the eleventh aspect has relative to any of the first through tenth aspects of the invention.

## Claims

1. An anorectal examination seat characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having an opening extending between the front and rear edges thereof for receiving the buttocks of the examinee sitting on the seat and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner.
2. An anorectal examination seat characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having an opening extending between the front and rear edges thereof for receiving the buttocks of the examinee sitting on the seat and allowing them to displace downwardly

- to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, a light source being attached to one of the legs or to the horizontal seat section and adapted to illuminate the exposed prolapsing parts of the anus/rectum of the examinee projecting from the buttocks of the examinee to a certain extent from the opening.
3. An anorectal examination seat characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having an opening extending between the front and rear edges thereof for receiving the buttocks of the examinee sitting on the seat and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, a tray being additionally provided for carrying thereon a lavatory and disposed right below the opening for receiving the buttocks of the examinee and dimensionally fitted for placement on the floor.
  4. An anorectal examination seat characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner.
  5. An anorectal examination seat characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, a light source being attached to one of the legs or to the horizontal seat section and adapted to illuminate the exposed prolapsing parts of the anus/rectum of the examinee projecting from the buttocks of the examinee to a certain extent from the opening.
  6. An anorectal examination seat characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, a tray being additionally provided for carrying thereon a lavatory and disposed right below the opening for receiving the buttocks of the examinee and dimensionally fitted for placement on the floor.
  7. An anorectal examination seat characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and a narrow guard rail provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner.
  8. An anorectal examination seat characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and a narrow guard rail provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner.

- to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, a light source being attached to one of the legs or to the horizontal seat section and adapted to illuminate the exposed prolapsing parts of the anus/rectum of the examinee projecting from the buttocks of the examinee to a certain extent from the opening.
9. An anorectal examination seat characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and a narrow guard rail provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, a tray being additionally provided for carrying thereon a lavatory and disposed right below the opening for receiving the buttocks of the examinee and dimensionally fitted for placement on the floor.
10. An anorectal examination seat characterized by comprising legs for standing on the floor and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and an optically transmissive reinforcement member provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner.
11. An anorectal examination seat according to any of claims 1 through 10, wherein the opening or recess for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent is defined either by the horizontal seat section alone or by the horizontal seat section and a rim cover member removably fitted to the horizontal seat section or pivotally fitted to the horizontal seat section by means of a hinge member secured to the latter at the front end of the opening or the recess, whichever is appropriate.
12. An anorectal examination seat according to any of claims 1 through 10, wherein each of the legs include a plurality of telescopic leg members adapted for screw engagement or pin hole engagement to make it extendible/retractable continuously or stepwise and regulate the elevation of the horizontal seat section.
13. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a predetermined upper position of the base supporting legs and a seat unit including legs extending upwardly from and rigidly secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base.
14. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a predetermined upper position of the base supporting legs and a seat unit including legs removably fitted to the top of the respective base supporting legs from above as extensions thereof and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base.

15. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a pre-determined upper position of the base supporting legs and a seat unit including legs extending upwardly from and secured to the top of the respective base supporting legs or legs removably fitted to the top of the respective base supporting legs from above as extensions thereof and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base, the horizontal seat section being provided with a safety railing.
16. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a pre-determined upper position of the base supporting legs and a seat unit including legs extending upwardly from and rigidly secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs, the horizontal seat section having an opening extending between the front and rear edges thereof for receiving the buttocks of the examinee sitting on the seat and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base.
17. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a pre-determined upper position of the base supporting legs and a seat unit including legs removably fitted to the top of the respective base supporting legs from above as extensions thereof and a horizontal seat section arranged at the top of the legs, the horizontal seat section having an opening extending between the front and rear edges thereof for receiving the buttocks of the examinee sitting on the seat and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base, a horizontal seat section, the horizontal seat section being provided with a safety railing.
18. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a pre-determined upper position of the base supporting legs and a seat unit including legs extending upwardly from and secured to the top of the respective base supporting legs or legs removably fitted to the top of the respective base supporting legs from above as extensions thereof and a horizontal seat section arranged at the top of the legs, the horizontal seat section having an opening extending between the front and rear edges thereof for receiving the buttocks of the examinee sitting on the seat and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base, a horizontal seat section, the horizontal seat section being provided with a safety railing.
19. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a pre-determined upper position of the base supporting legs and a seat unit including legs extending upwardly from and rigidly secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee

- and allowing them to displace downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base, a light source being attached to one of the legs or to the horizontal seat section and adapted to illuminate the exposed prolapsing parts of the anus/rectum of the examinee projecting from the buttocks of the examinee to a certain extent from the recess.
20. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a predetermined upper position of the base supporting legs, a seat unit including legs extending upwardly from and rigidly secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs and a tray for carrying thereon a lavatory, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace gravitationally downwardly to a certain extent, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base, the tray being disposed right below the opening for receiving the buttocks of the examinee and dimensionally fitted for placement on the floor.
21. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a predetermined upper position of the base supporting legs and a seat unit including legs extending upwardly from and rigidly secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and a narrow guard rail provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base.
22. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a predetermined upper position of the base supporting legs and a seat unit including legs removably fitted to the top of the respective base supporting legs from above as extensions thereof and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and a narrow guard rail provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base.
23. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a predetermined upper position of the base supporting legs and a seat unit including legs extending upwardly from and secured to the top of the respective base supporting legs or legs removably fitted to the top of the respective base supporting legs from above as extensions thereof and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and a narrow guard rail provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of



- the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base, the horizontal seat section being provided with a safety railing.
24. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a predetermined upper position of the base supporting legs and a seat unit including legs extending upwardly from and rigidly secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and a narrow guard rail provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base, the legs or the horizontal seat section being provided with a light source adapted to illuminate the exposed prolapsing parts of the anus/rectum of the examinee projecting downward from the recess for receiving the buttocks of the examinee.
25. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a predetermined upper position of the base supporting legs, a seat unit including legs extending upwardly from and rigidly secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs and a tray for carrying thereon a lavatory, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and a narrow guard rail provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and
- close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base, the tray being disposed right below the opening for receiving the buttocks of the examinee and dimensionally fitted for placement on the floor.
26. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a predetermined upper position of the base supporting legs and a seat unit including legs extending upwardly from and rigidly secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and an optically transmissive reinforcement member provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base.
27. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a predetermined upper position of the base supporting legs and a seat unit including legs removably fitted to the top of the respective base supporting legs from above as extensions thereof and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and an optically transmissive reinforcement member provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal

seat section in order to make the prolapsing parts of the anus/ rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base.

28. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a pre-determined upper position of the base supporting legs and a seat unit including legs extending upwardly from and secured to the top of the respective base supporting legs or legs removably fitted to the top of the respective base supporting legs from above as extensions thereof and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and an optically transmissive reinforcement member provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base, the horizontal seat section being provided with a safety railing.

29. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a pre-determined upper position of the base-supporting legs and a seat unit including legs extending upwardly from and rigidly secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and an optically transmissive reinforcement member provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the ex-

aminer, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base, the legs or the horizontal seat section being provided with a light source adapted to illuminate the exposed prolapsing parts of the anus/rectum of the examinee projecting downward from the recess for receiving the buttocks of the examinee.

30. An anorectal examination seat characterized by comprising a base unit including base supporting legs for standing on the floor and a horizontal base member having a step zone and arranged at a pre-determined upper position of the base supporting legs, a seat unit including legs extending upwardly from and rigidly secured to the top of the respective base supporting legs and a horizontal seat section arranged at the top of the legs and a tray for carrying thereon a lavatory, the horizontal seat section having a deep and hollow recess extending from the rear edge toward the front edge thereof for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent and an optically transmissive reinforcement member provided to bridge the gap of the rear edge of the horizontal seat section, a space being provided centrally between the rear lateral legs and close to the rear edge of the horizontal seat section to allow an examination reflector to be inserted from the rear side to a position below the horizontal seat section in order to make the prolapsing parts of the anus/rectum of the examinee observable to the examiner, the front edge of the horizontal seat section being located rearward relative to the step zone of the horizontal base member of the base, the tray being disposed right below the opening for receiving the buttocks of the examinee and dimensionally fitted for placement on the floor.

31. An anorectal examination seat according to any of claims 13 through 30, wherein the opening or recess for receiving the buttocks of the examinee and allowing them to displace downwardly to a certain extent is defined either by the horizontal seat section alone or by the horizontal seat section and a rim cover member removably fitted to the horizontal seat section or pivotally fitted to the horizontal seat section by means of a hinge member secured to the latter at the front end of the opening or the recess, whichever is appropriate.

FIG. 1

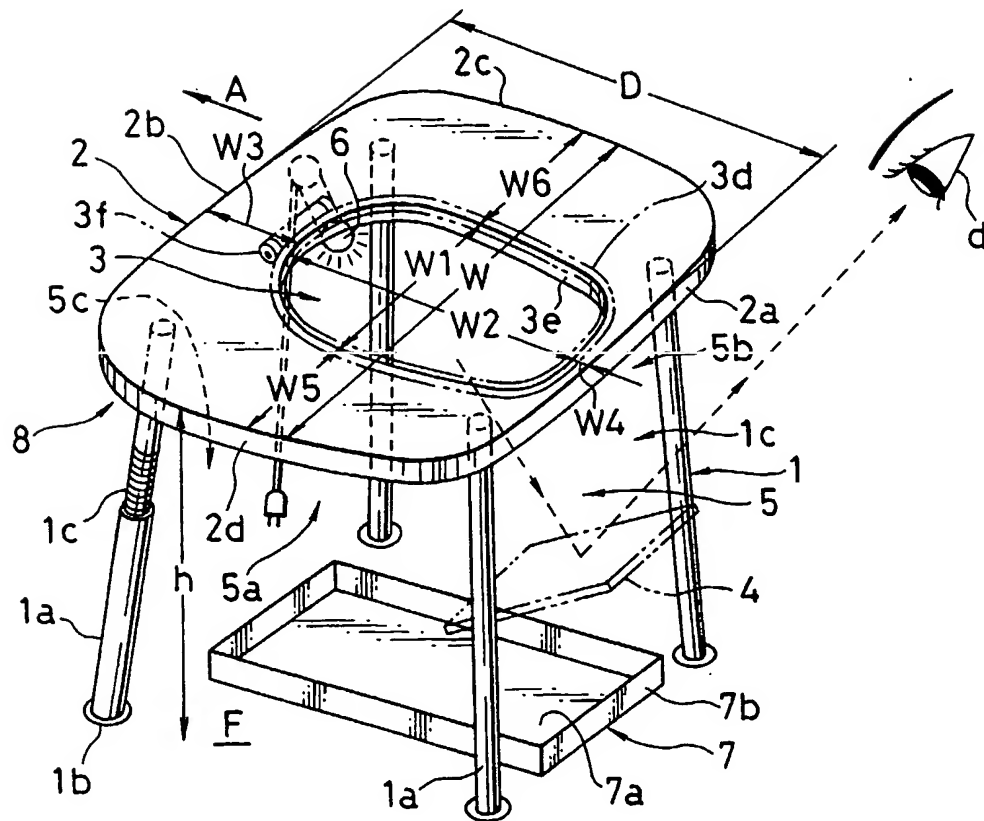


FIG. 2

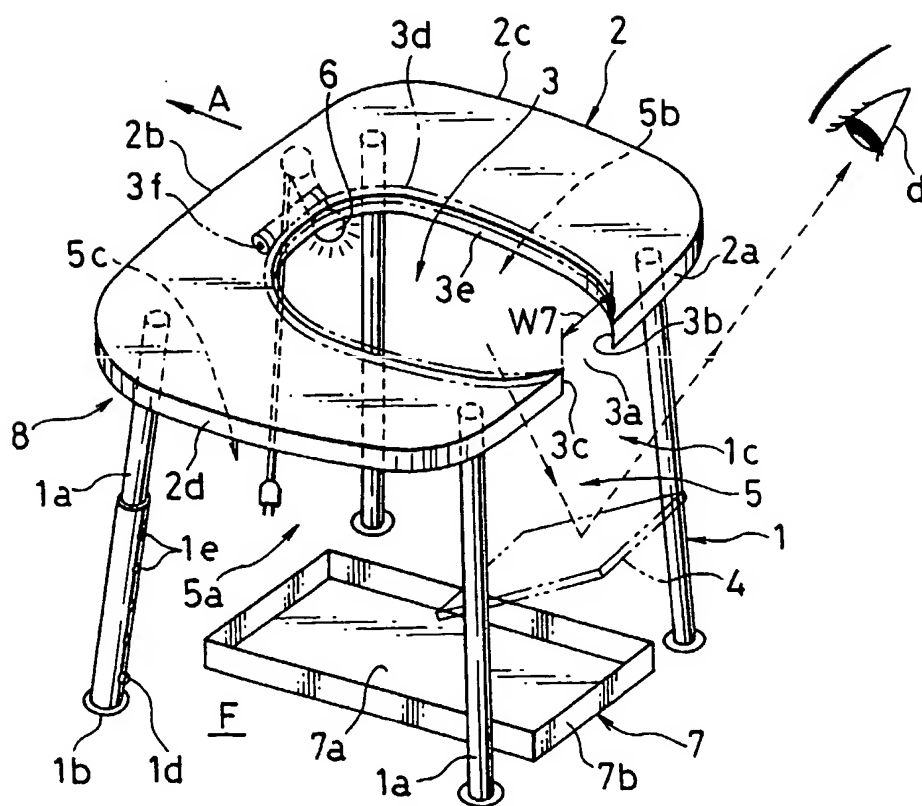


FIG. 3

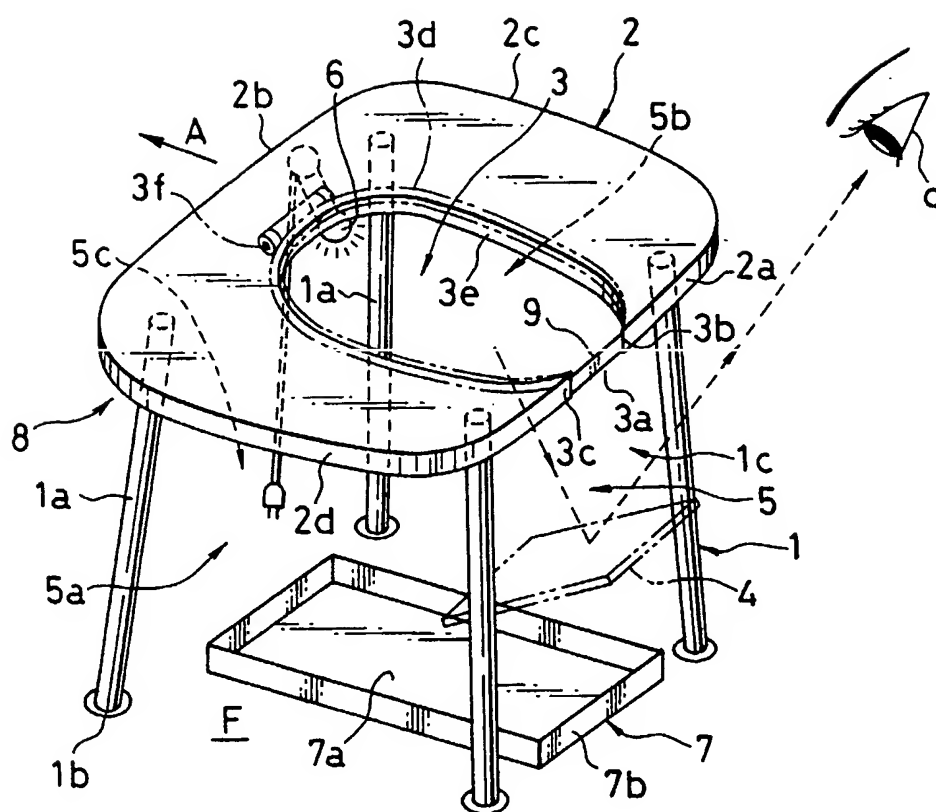


FIG. 4

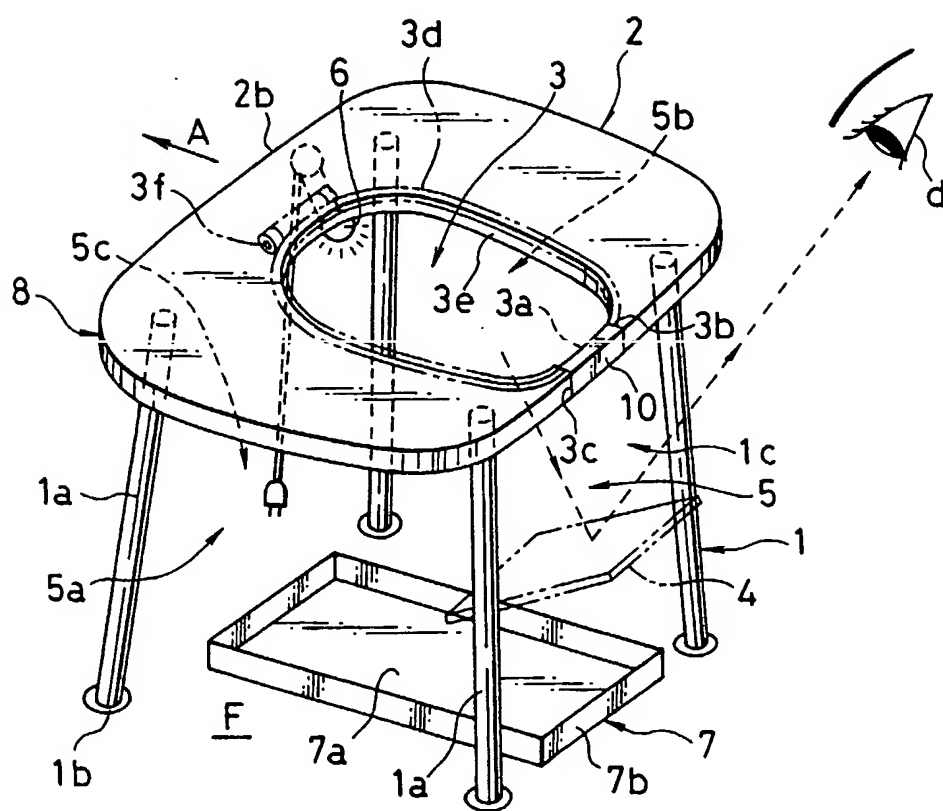


FIG. 5

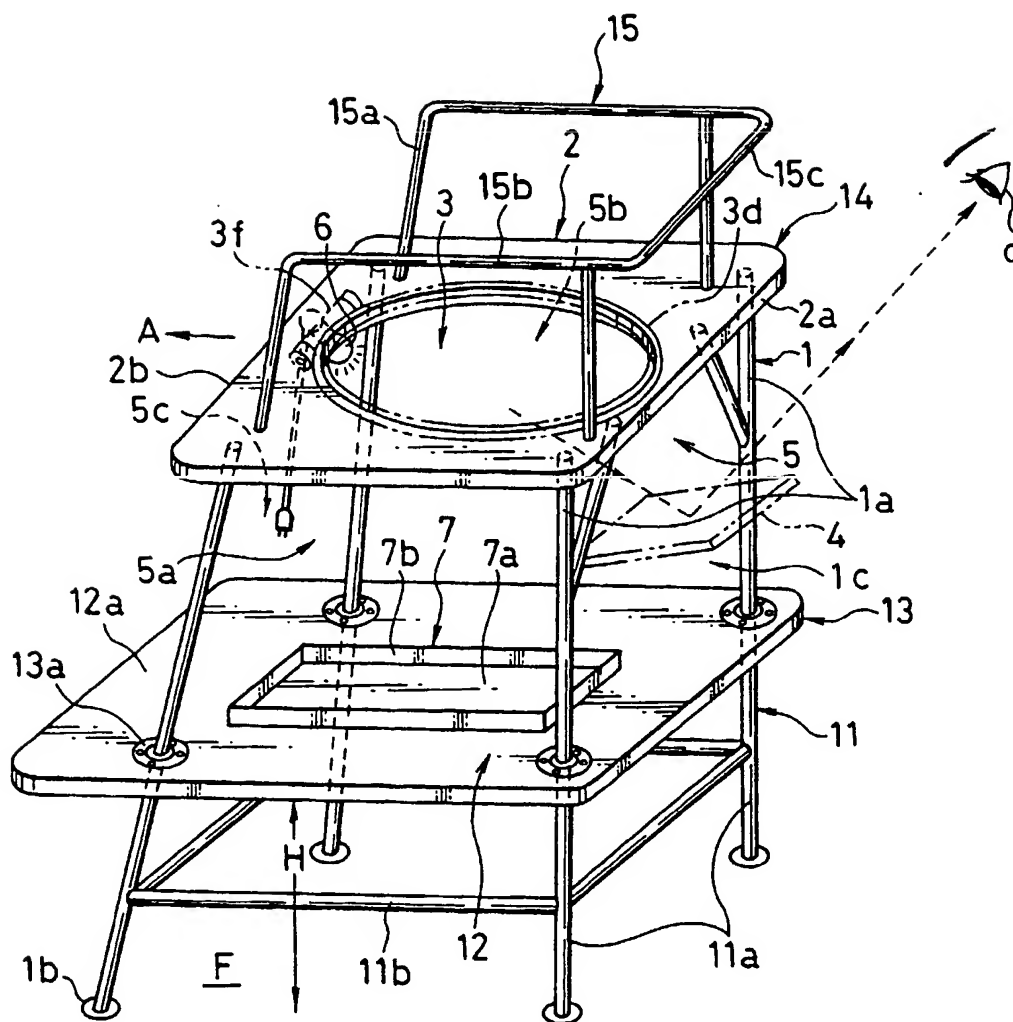




FIG. 6

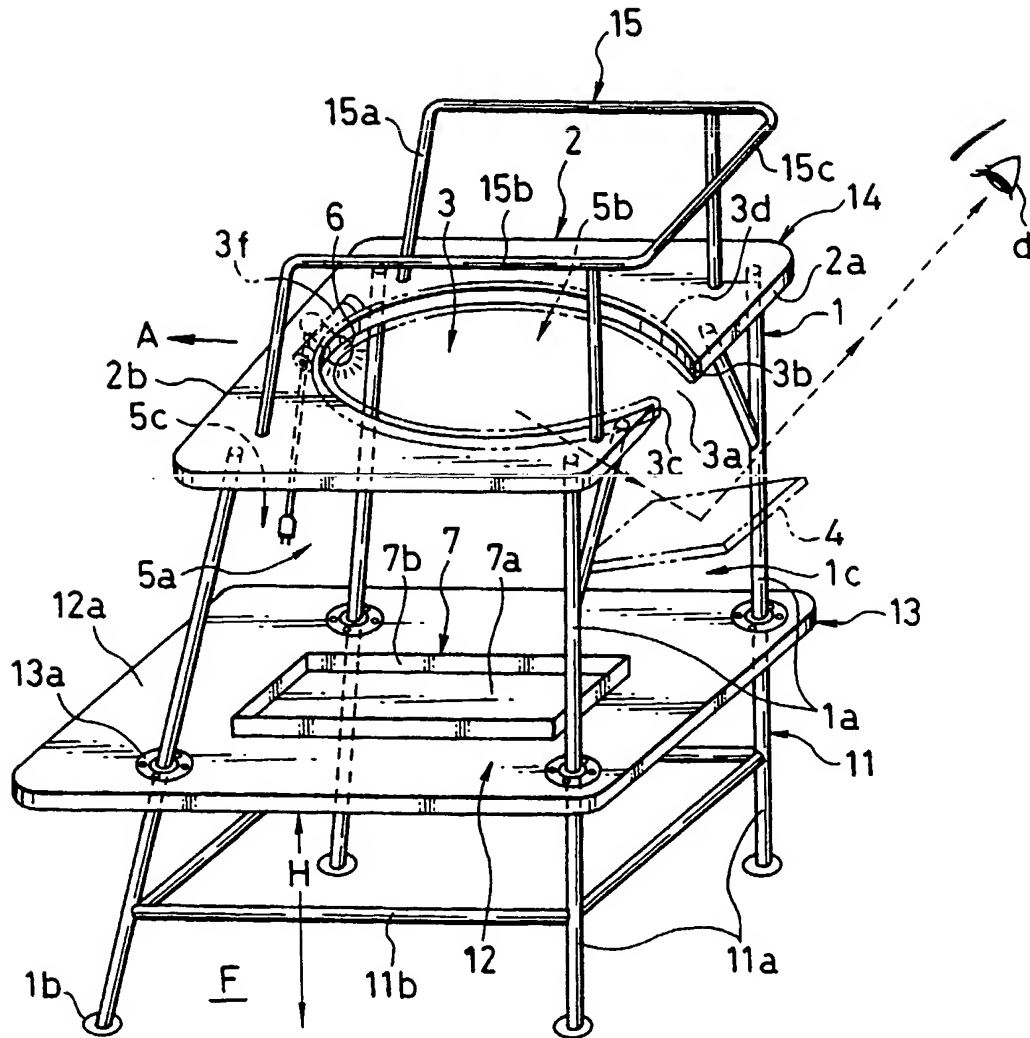


FIG. 7

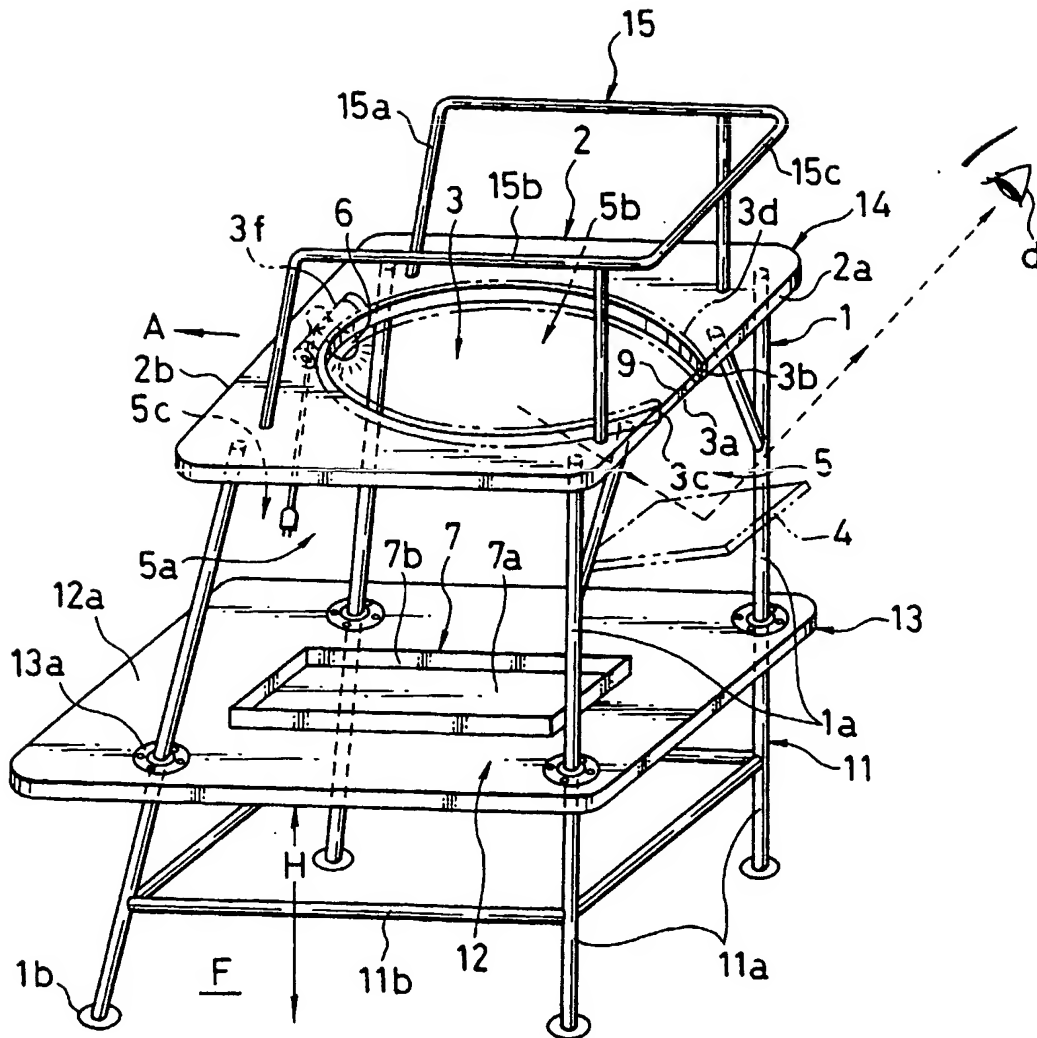


FIG. 8

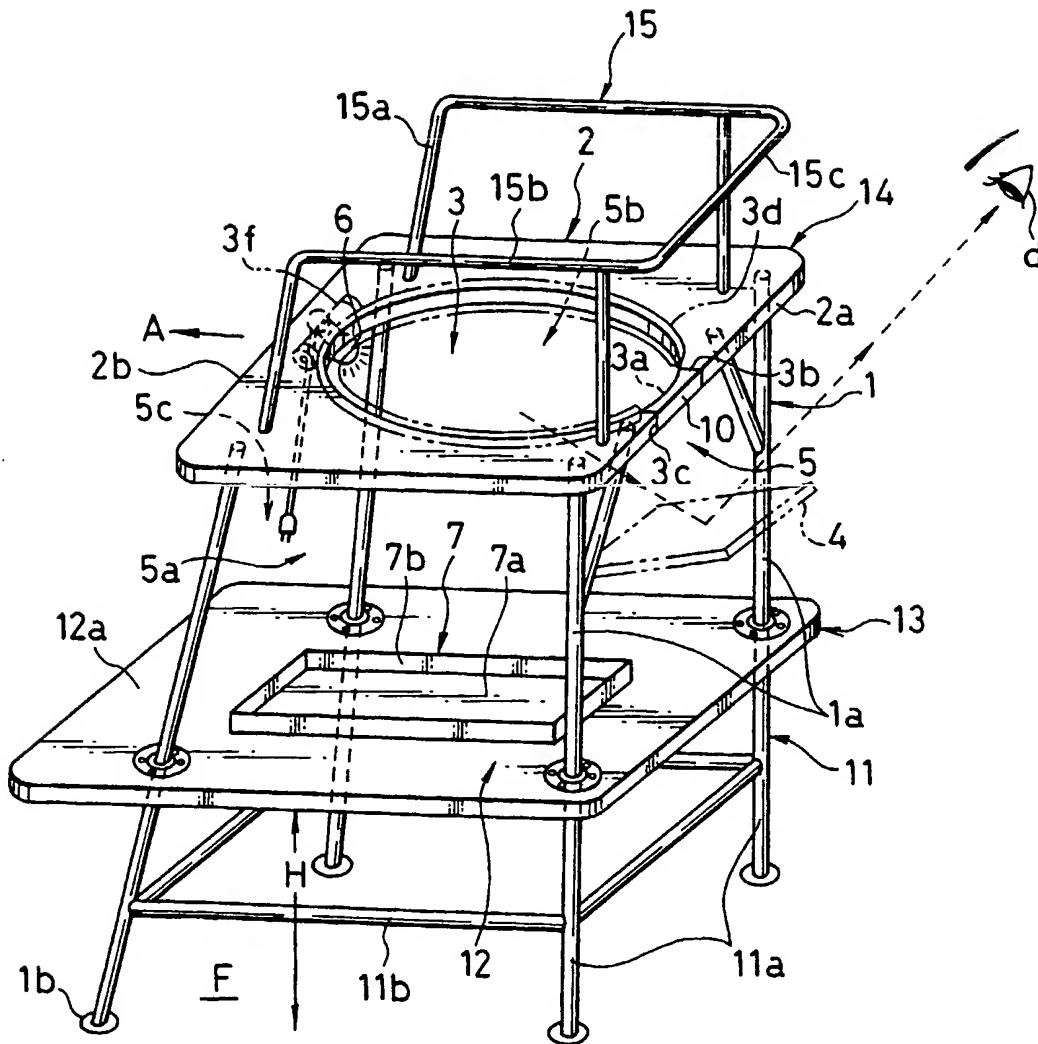


FIG. 9

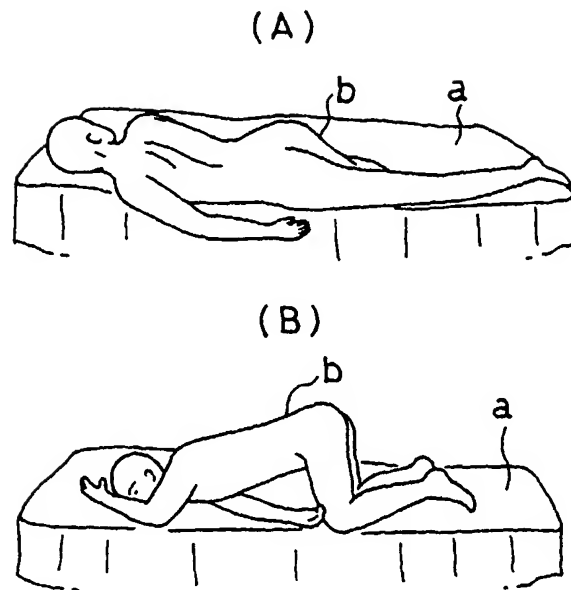


FIG. 10

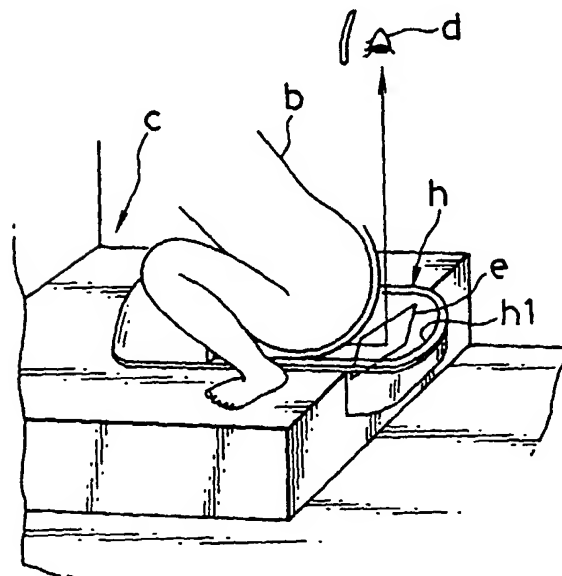


FIG. 11

